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## RADIATION DETECTOR PROBE

## ABSTRACT OF THE DISCLOSURE

Tympanic temperature measurements are obtained from the output of a radiation sensor mounted in an extension from a housing. The housing has a temperature display and supports electronics for responding to sensed radiation. The sensor is mounted in an improved extension which is shaped to fit into smaller ear canals, such as a child's ear canal or a swollen adult ear canal. Within the extension, the sensor is positioned in a highly conductive environment and receives radiation from an external target through a tube. Electronics determine the target temperature based on the sensor output signal and a temperature sensor signal.